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EFFICACY OF OCTREOTIDE IN UPPER GASTROINTESTINAL BLEEDING DUE TO VIRAL HEPATITIS INDUCED LIVER CIRRHOSIS

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ABSTRACT

Introduction: Upper gastrointestinal bleeding can be a deadly and life threatening condition and need intensive emergency treatment to keep away from undesirable morbidity and mortality. Octreotide has great viability and safety profile. **Objective;** To determine the efficacy of octreotide in cases of upper GI bleed due to liver cirrhosis. **Methodology:** In this study there were total 50 cases of upper GI bleed within last 24 hours due to liver cirrhosis of both genders falling in the age range of 30-70 years presenting to medical wards and emergency department. The octreotide 100mcg bolus injected then 800mcg in 400ml normal saline infusion given over the period of 24 hours. This therapy was given for 2 to 5 days. The efficacy was labeled as yes when there is no bleeding episode over 24 to 48 hours. **Results:** In this study there were total 50 cases out of which 35 (70%) were males and 15 (30%) females. The mean age and duration of cirrhosis were 49.45±6.85 years and 4.87±2.01 years respectively. The efficacy was almost equal in both genders (p= 0.95). The efficacy was slight better in age group 30-49 years where 16 (69.56%) out of 23 cases had it (p= 0.12). The efficacy was significantly better in Class A where 4 (80%) out of 5 cases had it as compared to Class B and C where it was almost equal with p= 0.01. **Conclusion;** octreotide has good efficacy in treating upper GI bleed in cases with liver cirrhosis and this is significantly better in cases with Child Pugh Class A.

KEYWORDS: GI bleed, Varices, Octreotide.

INTRODUCTION

Liver Cirrhosis is a high burden disease worldwide. It is defined as the chronic inflammation, regenerative nodules formation and then ultimately fibrosis. There is wide range of etiologies. In Pakistan Hepatitis B and C infection are the most common one, while in the developed world; alcoholism is the leading cause of liver cirrhosis. Cirrhosis is ranked as the 12th leading cause for mortality each year in USA.

Liver cirrhosis can result in various complications. Portal hypertension is one of the major one. It can lead to increased back pressure and varices formation that can bleed. Varices are observed in around 30% of patients with compensated and 60% patients with de-compensated liver cirrhosis. Bleeding from these varices is a medical emergency that can result in high degree of mortality and morbidity even with appropriate treatment. Endoscopic intervention is considered as the mainstay of the treatment by which band ligation, sclerotherapy, cold lavage and other steps can be taken with maximum efficacy. But it is not available everywhere and expert hand is always in need. On few occasions the rate of bleeding is so rapid that the view could not be clear to take any appropriate step. That's the point where medical management is required. The data has revealed that almost 70–80% of cases with episodes of variceal bleed respond to medical therapy.

Medical management is considered in the form of supportive therapy, blood and blood products replacement, proton pump inhibitors, sandostatin and terlipressin that have various degree of success. octreotide (sandostatin) has advantage that it is cheaper than terlipressin and almost equal efficacy.

OBJECTIVE

To determine the efficacy of Octreotide in cases of upper GI bleed due to liver cirrhosis.

Study Design: Case series.

Settings: Nishtar Hospital Multan.

Duration of Study: October 2018 to March 2019

Sample technique
Non probability consecutive sampling.

MATERIAL AND METHODS

In this study there were total 50 cases of upper GI bleed within last 24 hours due to liver cirrhosis (assessed by history and medical record) of both genders falling in the age range of 30-70 years presenting to medical wards and emergency department. The diagnosis of liver cirrhosis was made on clinical and laboratory data and the cases were divided into 3 groups of Child Pugh Class A, B and C. The octreotide 100mcg bolus injected then 800mcg in 400ml normal saline infusion given over the period 24 hours. This therapy was given for maximum of 5 days. The efficacy was labeled as yes when there is no bleeding episode over 24 to 48 hours.

Statistical analysis

The data was entered and analyzed with the help of SPSS version 21. Quantitative variables were presented in terms of mean ± SD (Standard Deviation). Frequency & percentages were calculated for categorical data. Effect modifiers were controlled and post stratification chi-square test was applied taking p-value $\leq$ 0.05 as significant. Ethical approval was taken from the ethical review committee of our institute. All the patients were enrolled in the study after taking informed consent.

RESULTS

In this study there were total 50 cases out of which 35 (70%) were males and 15 (30%) were females. The mean age and duration of cirrhosis were 49.45±6.85 years and 4.87±2.01 years respectively. There were 5 (10%) cases in Child Pugh Class A, 21 (42%) in B and 24 (48%) in class C. The efficacy was seen in 30 (60%) of cases. The efficacy was almost equal in both genders (p= 0.95) as in table 1. The efficacy was slight better in age group 30-49 years where 16 (69.56%) out of 23 cases had it (p= 0.12) in table 2. The efficacy was significantly better in Class A where 4 (80%) out of 5 cases had it as compared to Class B and C where it was almost equal with p= 0.01 as in table 3.

Table 01: Efficacy With Respect To Gender n= 50.

Gender	Efficacy		Significance
	Yes	No	
Male	22	13	
Female	8	7	p= 0.76
Total	**30 (60%)**	**20 (40%)**	

Table 02: Efficacy With Respect To Age Groups n= 50.

Age groups	EFFICACY		Total
	Yes	No	
30-49	16	7	23
50-70	14	13	27
Total	**30**	**20**	**50**

Table 03 Efficacy With Respect To Child Pugh Class n= 50.

Child Pugh Class	EFFICACY		Total	Significance
	Yes	No		
A	4	1	5	p= 0.01
B	12	9	21	
C	14	10	24	
Total	**30**	**20**	**50**	

DISCUSSION

Upper GI draining is a hazardous crisis and it needs critical intercession to maintain a strategic distance from mortality. Octreotide is one of the commonest utilized agent to stop bleeding. It is a somatostatin analogue minimal side effects and preferable security profile over vasopressin observed. A meta-analysis was done to see for its efficacy and it was seen that in terms of mortality reduction there was 34% decrease in relative risk as compared to placebo. In another investigation, the similar examination amongst Terlipressin and octreotide was done and it was seen there is no distinction in result, both are similarly efficient and lifesaving. In different investigations done octreotide organization demonstrates 70 to 80% variceal bleeding control within 48 hours.

The efficacy was fundamentally better in Class A where 4 (80%) out of 5 cases had it when contrasted with Class B and C where it was relatively equivalent with p= 0.01. This was likewise observed by different examinations done in the past that additionally discovered better outcomes in lesser level of ailment. The reason of better adequacy can be clarified by the way that the prior the sickness and lesser are the odds to build up the varices. Conversely in serious infection like Child pugh Class C, there were substantially higher opportunities to have high

level of varices and that prompted diminished reaction to Octreotide.

CONCLUSION

Octreotide has good efficacy in treating upper GI bleed in cases with liver cirrhosis and this is significantly better in cases with Child Pugh Class A.

Conflicts of interest: None declared.

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